

Claims

1. (Currently amended) A genetically altered chondrocyte used for expressing a therapeutic agent, wherein the genetically altered chondrocyte, ~~when is effective to be delivered to a cell~~ target region having one or more cells associated with a disorder, ~~and to express~~ expresses the therapeutic agent in such a way as to modify an environment surrounding the ~~cell~~ one or more cells, ~~such that wherein~~
(a) said environment is an atypical chondrocyte environment; and
(b) wherein the genetically altered chondrocyte is ~~is~~ does not become a structural component of ~~structurally functional in~~ the environment surrounding the cell.
2. (Currently amended) The genetically altered chondrocyte of claim 1, wherein the chondrocyte produces a therapeutic agent selected from the group consisting of a protein, ~~an agonist or an antagonist of an antibody, a~~ mimetibody, an antigen, a hormone, an anti-inflammatory agent, an antiviral agent, an anti-bacterial agent, a growth factor, a cytokine, an oncogene, a tumor suppressor, a transmembrane receptor, an adhesion molecule, a neurotransmitter, a morphogenetic protein, a differentiation factor, an enzyme, and an extracellular matrix protein.
3. (Original) The genetically altered chondrocyte of claim 1, wherein the therapeutic agent is an Erythropoietin protein.
4. (Original) The genetically altered chondrocyte of claim 1, wherein the therapeutic agent is an Erythropoietin mimetibody.
5. (Cancelled) The genetically altered chondrocyte of claim 5, wherein the cell associated with a disorder is in an atypical chondrocyte environment.
6. (Currently amended) The genetically altered chondrocyte of claim 1, wherein the atypical chondrocyte environment is in an organ selected from the group consisting of the brain, heart, liver, kidney, gastro-intestinal tract, spleen, smooth muscles, skeletal muscles, eye, ganglions, lungs, gonads, and pancreas.

7. (Original) The genetically altered chondrocyte of claim 1, wherein the atypical chondrocyte environment is an aqueous environment selected from the group consisting of blood and plasma.
8. (Original) The genetically altered chondrocyte of claim 1, wherein the cell associated with a disorder is in a typical chondrocyte environment.
9. (Original) The genetically altered chondrocyte of claim 8, wherein the typical chondrocyte environment is selected from the group consisting of bone, tendon and cartilage.
10. (Original) The genetically altered chondrocyte of claim 1, further comprising a biocompatible substrate mixed therewith.
11. (Original) The genetically altered chondrocyte of claim 10, wherein the biocompatible substrate is gel matrix substrate.
12. (Original) The genetically altered chondrocyte of claim 1, wherein the cell associated with a disorder is a cell selected from the group consisting of a cell associated with a blood disorder, a cell associated with a cardiovascular disorder, a cell associated with an endocrine disorder, a cell associated with an autoimmune disorder, a cell associated with a neurological disorder, a cell associated with a skin disorder, a cell associated with fertility disorder, and a cell associated with reproduction.
13. (Currently amended) A genetically altered chondrocyte used for expressing a therapeutic agent in ~~a target region~~ an environment surrounding a cell associated with a disorder, wherein the genetically altered chondrocyte is effective to be delivered to the environment ~~target region~~ and ~~to~~ expresses the therapeutic agent to modify the ~~target region or an environment surrounding the cell~~ target region, ~~such that and wherein~~ the genetically altered chondrocyte does not become a structural

~~component of the structurally functional in the target region or the environment surrounding the target region.~~

14. (Currently amended) The genetically altered chondrocyte of claim 13, wherein the chondrocyte produces a therapeutic agent selected from the group consisting of a protein, ~~an agonist or an antagonist of an antibody~~, a mimetibody, an antigen, a hormone, an anti-inflammatory agent, an antiviral agent, an anti-bacterial agent, a growth factor, a cytokine, an oncogene, a tumor suppressor, a transmembrane receptor, an adhesion molecule, a neurotransmitter, a morphogenetic protein, a differentiation factor, an enzyme, and an extracellular matrix protein.
15. (Original) The genetically altered chondrocyte of claim 13, wherein the therapeutic agent is an Erythropoietin protein.
16. (Original) The genetically altered chondrocyte of claim 13, wherein the therapeutic agent is an Erythropoietin mimetibody.
17. (Original) The genetically altered chondrocyte of claim 13, wherein the target region is in an atypical chondrocyte environment.
18. (Original) The genetically altered chondrocyte of claim 17, wherein the atypical chondrocyte environment is in an organ selected from the group consisting of the brain, heart, liver, kidney, gastro-intestinal tract, spleen, smooth muscles, skeletal muscles, eye, ganglions, lungs, gonads, and pancreas.
19. (Original) The genetically altered chondrocyte of claim 17, wherein the atypical chondrocyte environment is an aqueous environment selected from the group consisting of blood and plasma.
20. (Original) The genetically altered chondrocyte of claim 13, wherein the target region is in a typical chondrocyte environment.

21. (Original) The genetically altered chondrocyte of claim 20, wherein the typical chondrocyte environment is selected from the group consisting of bone, tendon, and cartilage.
22. (Original) The genetically altered chondrocyte of claim 13, further comprising a biocompatible substrate mixed therewith.
23. (Original) The genetically altered chondrocyte of claim 22, wherein the biocompatible substrate is gel matrix substrate.
24. (Original) The genetically altered chondrocyte of claim 13, wherein the disorder is selected from the group consisting of a blood disorder; a cardiovascular disorder; an endocrine disorder; an autoimmune disorder; a neurological disorder; a skin disorder; a fertility disorder and reproduction.